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l OCT 2004

Scott A. Stinebruner   Reg. No. 38,323   DATE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Joseph Phillip Bigus et al.	Art Unit: 3621
Serial No.: 09/431,833	Examiner: Firmin Backer
Filed : November 2, 1999	
For : INTELLIGENT AGENT WITH NEGOTIATION CAPABILITY AND METHOD OF NEGOTIATION THEREWITH	

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

1. ☒ **Transmitted herewith are a Request to Reinstate Appeal and a Supplemental Appeal Brief (in triplicate).**

2. ☐ Small Entity status of this application under 37 CFR 1.9 and 1.27 has been established by a verified statement previously submitted.

   ☐ Enclosed is a verified statement to establish Small Entity status

   ☒ **Other than a Small Entity**

3. **The fee has been calculated as shown below:**

CALCULATION OF FEES

Fee:	Number of Claims After Amendment:		Previously Paid For:	No. Extra:	At Rate:	Amount:
Total Claims	19	minus	20	0	$18	$0.00
Independent Claims	3	minus	3	0	$88	$0.00
MULTIPLE DEPENDENT CLAIM FEE					$300	$0.00
TOTAL FEE FOR CLAIMS:						$0.00

☒ **No additional fee for claims is required.**

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Supplemental Appeal Brief of October 1, 2004
IBM Docket: RO996054L
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4.   ☐   Attached is a check in the sum of $_____ for additional claims.

       ☐   Please charge my Deposit Account No. 23-3000 in the amount of $_____.

5.   **The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply. Complete (a) or (b) as applicable.**

     ☐   (a)   Applicant petitions for an extension of time under 37 CFR 1.136 for the total number of months checked below:

	Ext. Mos.	Large entity	Small entity
☐	one month	$ 110.00	$ 55.00
☐	two months	$ 430.00	$ 215.00
☐	three months	$ 980.00	$ 490.00
☐	four months	$1,530.00	$ 765.00
☐	five months	$2,080.00	$1,045.00

Extension fee due with this request: $_____

Method of Payment: Check enclosed in the amount of $_____

If an additional extension of time is required, please consider this a petition therefor.

(Check and complete the next item, if applicable)

     ☐   An extension for ____ months has already been secured and the fee paid thereof of $___ is deducted from the total fee due for the total months of extension now requested. Extension fee due with this request $____.
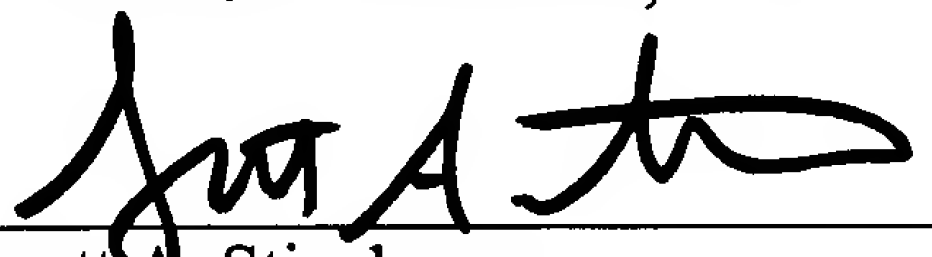
OR

     ☒   (b)   **Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.**

6.   ☒   **If any additional fee for claims or extension of time is required, charge Account No. 23-3000.**

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

By: _____

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<u>Enclosed</u>:
Amendment Transmittal (in duplicate) containing Certificate of Mailing under 37 C.F.R. 1.8
Request to Reinstate Appeal
Supplemental Appeal Brief (in triplicate)
Reply Postcard

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Joseph Phillip Bigus et al.	Art Unit:	3621
Serial No.:	09/431,833	Examiner:	Firmin Backer
Filed:	November 2, 1999	Atty. Docket No.:	IBM/02B
For:	INTELLIGENT AGENT WITH NEGOTIATION CAPABILITY AND METHOD OF NEGOTIATION THEREWITH		

REQUEST TO REINSTATE APPEAL

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is submitted in reply to the Office Action dated July 1, 2004, within the three month period for response. The subject Office Action was entered subsequent to reopening of prosecution by the Examiner in response to Applicants' Appeal Brief of April 12, 2004 filed in connection with the Appeal instituted via Applicant's Notice of Appeal dated February 13, 2004. Applicants hereby request reinstatement of the Appeal, pursuant to 37 CFR §1.193(b)(2)(ii). A Supplemental Appeal Brief, as required by this rule, is enclosed herewith in triplicate. The Examiner will note that the Supplemental Appeal Brief addresses all outstanding issues on appeal, although the Examiner and Board may also refer to the original Appeal Brief as appropriate. In addition, the Examiner will note the indication of an appeal in a related application in Section II of the Supplemental Appeal Brief, which indication was inadvertently omitted in Applicants' prior Appeal Brief.

If there are any questions regarding the foregoing, or which might otherwise further this case onto allowance, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.
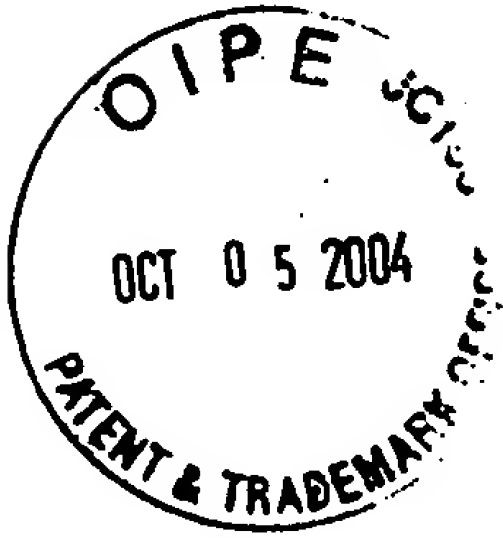
Respectfully submitted,

1 OCT 2004

Date

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte Joseph Phillip Bigus, Brian John Cragun, and Helen Roxlo Delp

Appeal No. _____
Application No. 09/431,833

SUPPLEMENTAL APPEAL BRIEF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Joseph Phillip Bigus et al.	Art Unit:	3621
Serial No.:	09/431,833	Examiner:	Firmin Backer
Filed:	November 2, 1999	Atty. Docket No.:	IBM/02B
For:	INTELLIGENT AGENT WITH NEGOTIATION CAPABILITY AND METHOD OF NEGOTIATION THEREWITH		

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF

I. REAL PARTY IN INTEREST

This application is assigned to International Business Machines Corporation, of Armonk, New York.

II. RELATED APPEALS AND INTERFERENCES

An appeal is currently pending in an application identified as being related to the instant application, U.S. S/N 09/100,595.

III. STATUS OF CLAIMS

Claims 54-63 and 104-112 are pending in the Application. All pending claims stand rejected, and are now on appeal.

IV. STATUS OF AMENDMENTS

No amendments have been filed prior to or subsequent to final rejection (Paper No. 11).

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V. SUMMARY OF INVENTION

Applicants' invention is generally directed to the identification of unknown parties interacting with an intelligent agent, e.g., for the purpose of modifying the behavior of an intelligent agent depending upon the identity of a party with which the agent is interacting.

As discussed at pages 3 and 4 of the Application, intelligent agents are computer programs that "operate much like software-implemented 'assistants' to automate and simplify certain tasks in a way that hides their complexity from the user." (Application, page 3, lines 6-8). Furthermore, intelligent agents are "characterized by the concept of delegation, where a user, or client, entrusts the agents to handle tasks with at least a certain degree of autonomy," causing them to "operate with varying degrees of constraints depending upon the amount of autonomy that is delegated to them by the user." (Application, page 3, lines 13-18). In addition, as further stated in the Application:

> Intelligent agents may also have differing capabilities in terms of intelligence, mobility, agency, and user interface. Intelligence is generally the amount of reasoning and decision making that an agent possesses. This intelligence can be as simple as following a predefined set of rules, or as complex as learning and adapting based upon a user's objectives and the agent's available resources.

> Mobility is the ability to be passed through a network and execute on different computer systems. That is, some agents may be designed to stay on one computer system and may never be passed to different machines, while other agents may be mobile in the sense that they are designed to be passed from computer to computer while performing tasks at different stops along the way. User interface defines how an agent interacts with a user, if at all. (Application, page 3, line 19 to page 4, line 5).

Agents have a number of uses in different computer applications, including, for example, electronic commerce, where an agent may be used to seek out other parties such as other users, computer systems and agents, conduct negotiations on behalf of their client, and enter into commercial transactions. (Application, page 4, lines 6-15). In this regard, one concern that may arise with respect to an intelligent agent relates to the interaction of the agent with unknown

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parties. Unlike the situation where an agent is interacting with a party that is known to be reliable, when an agent is interacting with an unknown party, the agent may be subjected to a greater risk of malicious activities, e.g., with respect to tampering, deception, snooping, etc. Particularly when an agent is mobile in nature and/or resident on an unsecured or third party computer system, the owner or principal of an agent may not be able to ensure that the agent interacts only with trusted parties. (Application, page 6, lines 4-14). Indeed, it may be desirable in some instances to alter the behavior of an agent when the agent is interacting with unknown parties to better protect the agent against potential malicious activities.

Therefore, to assist in the identification of unknown parties interacting with an intelligent agent, embodiments consistent with the invention maintain records of known parties, with the records including one or more attributes that are used to characterize those known parties. (Application, page 8, lines 3-8). By doing so, when an agent interacts with an unknown party, the agent is able to compare one or more attributes related to the unknown party with those of known parties. Based upon such a comparison, the agent may be able to identify the unknown party as that known party for which the attributes have been found to most closely match. (Application, page 8, lines 8-16).

A number of different types of attributes may be compared to identify an unknown party. For example, with regard to an unknown party that is implemented as an agent used in an electronic commerce environment, information such as name or identification, client name, bank and/or bank account number, credit card number, homebase location (e.g., IP address or domain), program size, message origination location, or pattern of pattern of input/output (I/O) compared to CPU cycles for I/O transmissions, may be used. (Application, page 40, lines 4-13). As another alternative, an unknown agent may be scanned and compared to other known agents, e.g., by comparing the percentage of identical code, determining the language the agent was written in, or searching for unique patterns in much the same manner as a virus checking program. (Application, page 40, lines 13-18).

Moreover, while other algorithms may be used to perform the comparison of attributes, the Application describes one particular algorithm that relies on weighting factors associated

with each attribute. (Application, page 40, lines 19-21). The comparison of the attributes of an unknown party with a known party involves the calculation of an accumulated weighting factor by summing the weighting factors of the attributes of the known party which match those of the unknown party. (Application, page 40, lines 24-29). As such, the identification of the unknown party may be based upon identifying the known party that has the largest accumulated weighting factor. (Application, page 41, lines 8-11).

VI. ISSUE

Whether claims 54-63 and 104-112 were improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,550,145 to Hoffman et al. (hereinafter *Hoffman*) in view of U.S. Patent No. 6,148,067 to Leipow (hereinafter *Leipow*).

VII. GROUPING OF CLAIMS

For the purposes of appeal, the following groupings of claims are considered to be separately patentable, with the individual claims within each claim grouping standing or falling together:

Group I: claims 54-56, 60-63, and 108-109

Group II: claim 104

Group III: claims 57, 105 and 110

Group IV: claims 58, 106 and 111

Group V: claims 59, 107 and 112

VIII. ARGUMENT

Applicants respectfully submit that the Examiner's obviousness rejections of claims 54-63 and 104-112 are not supported on the record, and should be reversed. A *prima facie* showing of obviousness requires that the Examiner establish that the differences between a claimed invention and the prior art "are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. §103(a). Such a showing requires that all claimed features be disclosed or suggested by the prior art. Such a showing also requires objective evidence of the suggestion, teaching or motivation to combine or modify prior art references, as "[c]ombining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Applicants respectfully submit that, in the instant case, the Examiner has failed to establish a *prima facie* case of obviousness as to any of the pending claims, and as such, the rejections should be reversed.

A specific discussion of the non-obviousness of each of the identified groups of claims is presented in greater detail below.

A.   The Group I claims (claims 54-56, 60-63 and 108-109) were improperly rejected as being unpatentable over *Hoffman* in view of *Leipow*

Claim 54, which is representative of the Group I claims, recites a method of identifying an unknown party interacting with an intelligent agent. The method includes determining at least one attribute related to the unknown party, comparing the attribute for the unknown party with attributes related to a plurality of known parties, and identifying the unknown party as the known party having the attribute which most closely matches that of the unknown party.

In rejecting claim 54, the Examiner now relies on the combination of *Hoffman* and *Leipow*. It should be noted that this rejection now makes the *fifth* rejection that has been applied against the claim (which has never been amended). Moreover, it should be noted that, with the exception of claim 54, the Examiner's arguments with respect to every rejection in the current Office Action are identical to those of the rejections made in the prior Office Action upon which Applicants previously appealed. In addition, with respect to the Examiner's rejection of claim 54, the Examiner's arguments are identical to the previous rejection except for replacing the citation to *Tanaka* with the citation to *Leipow*. Indeed, even the Examiner's characterization of *Leipow*

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and the reasons for combining *Leipow* with *Hoffman* are identical to those asserted for *Tanaka*. Applicants respectfully submit that given that *Tanaka* and *Leipow* are completely different references, the failure on the part of the Examiner to compose even a single new argument that is specific to *Leipow* highlights the rather superficial nature of the analysis applied throughout the Office Action. Applicants submit that the lack of substantive analysis in the rejections renders the Examiner's rejections deficient on their face.

Now turning specifically to the merits of the rejection of claim 54, *Hoffman* specifically discloses a biometric authorization system that compares a biometrics sample of a user with that stored in a previously-stored authenticated biometrics sample, typically in connection with the provision of an identification code. The Examiner apparently argues that this feature of *Hoffman* discloses the determination of an attribute of an unknown party, comparing that attribute to those of known parties, and identifying the unknown party as the known party having the closest match to that of the unknown party, citing the abstract, Figs. 1 and 2, col. 7, lines 50-59, col. 8, lines 11-51, col. 9, lines 11-44, col. 12, line 23 to col. 13, line 34, col. 71, lines 5-20 and claim 1 (which, incidentally, is the same passage used to reject the remainder of the pending claims).

Despite this teaching in *Hoffman*, however, the Examiner has admitted that *Hoffman* fails "to teach an inventive concept of identifying an unknown party interacting with an intelligent agent." (July 1, 2004 Office Action, ¶3). Indeed, *Hoffman* is entirely silent with respect to the concept of intelligent agents altogether.

To address this deficiency, the Examiner relies on *Leipow* for allegedly teaching this concept, citing the abstract of *Leipow* as well as Fig. 1, and what Applicants presume is col. 3, lines 9-50. However, like *Hoffman*, *Leipow*, and in particular the passage therein cited by the Examiner, is completely <u>silent</u> with respect to the concept of identifying an unknown party interacting with an intelligent agent. As such, the reference adds absolutely nothing to the rejection, and the rejection should be reversed.

Leipow discloses, at the most, an online service that enables users to communicate with one another over a telephone call without enabling either user to know the phone number of the other user (a concept *Leipow* refers to as "anonymous voice communication"). As discussed, for

example, at col. 1, line 43 to col. 2, line 28, *Leipow* essentially enables two or more users participating in an online community such as a text chat room to communicate with one another over a telephone, while still remaining anonymous. The reference discusses the concept of a "trusted agent", which in the preferred embodiment is implemented as an anonymous voice bridge management unit 210 that connects a user over a telephone line when provided that user's telephone number.

Under the scenario described in *Leipow*, a user typically provides a user ID when interacting in an online chat room (col. 1, lines 22-25), but the user is otherwise anonymous. When two users in the chat room decide they would like to talk to one another over a telephone, each user connects to the anonymous voice bridge management unit, which then requests each user to provide his or her telephone number and the user ID of the other party to be connected to (col. 4, lines 12-22). Once this information has been received from each user, the anonymous voice bridge management unit then dials both telephone numbers and connects the two telephone numbers in conference mode, thus connecting the users via telephone without enabling either user to be informed of the telephone number of the other user (col. 6, lines 13-28).

While *Leipow* does note that a voice bridge management unit can be implemented in hardware or software (col. 7, lines 57-63), Applicants submit that there is some question as to whether the "trusted agent" of *Leipow* corresponds to an intelligent agent within the context of Applicants claims. As noted above in the Summary of the Invention section of this paper, intelligent agents are defined in the Application as programs that operate like software-implemented assistants, but which also are "characterized by the concept of delegation, where a user, or client, entrusts the agents to handle tasks with at least a certain degree of autonomy," causing them to "operate with varying degrees of constraints depending upon the amount of autonomy that is delegated to them by the user." (Application, page 3, lines 13-18). This definition is entirely consistent with the accepted usage of the term in the art. As such, an intelligent agent as set forth in claim 54 requires at least some delegated autonomy to handle tasks on behalf of a client or user, a concept that is not met by the "trusted agent" of *Leipow*.

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Even assuming *arguendo* that a "trusted agent" in *Leipow* does correspond to an intelligent agent, however, Applicants can find no disclosure or suggestion anywhere in *Leipow* relating to any functionality for attempting to identify an unknown party. The Examiner apparently considers each user to be "unknown" despite being associated with a user ID, otherwise there would be no "unknown party" to be identified, and the reference would be completely irrelevant. Assuming, therefore, that each user is unknown other than from the standpoint of being associated with a user ID, the most the *Leipow* trusted agent ascertains about a user is the user's telephone number when it is voluntarily provided by the user. Similar to the prior reference to *Tanaka*, *Leipow* therefore determines at the most "where" a party is (i.e., how to contact that party), rather than "who" the party is, which is an entirely different and irrelevant question. Prompting a user to input a telephone number does not, by itself, "identify" that user.

As such, Applicants respectfully submit that the Examiner's contention that the prior art teaches the identification of an unknown party interacting with an intelligent agent, where the intelligent agent is a program that has been delegated some autonomy to act on behalf of a user or client, is incorrect.

Furthermore, to sustain the obviousness rejection of claim 54, the Examiner is required to provide objective evidence of a recognized motivation in the art to modify *Hoffman* to identify an unknown party interacting with an intelligent agent. The Examiner has failed to meet this burden. Given that *Hoffman* does not address intelligent agents, *Hoffman* itself cannot be relied upon to provide the required evidence of motivation. Moreover, even if *Leipow* was considered to be directed to intelligent agents, *Leipow* does not address the identification of unknown parties, much less the identification of unknown parties interacting with an intelligent agent.

If anything, *Leipow* teaches away from Applicants invention, because the entire purpose of *Leipow* is to maintain anonymity between users that wish to speak with one another over the telephone. *Leipow* is therefore focused principally on the concept of hiding, rather than uncovering, the identities of users. Taken in this light, Applicants submit that one of ordinary skill in the art would not look to *Leipow* for guidance on how to modify *Hoffman* to identify an unknown party interacting with an intelligent agent.

Moreover, Applicants respectfully submit that the claimed invention addresses a unique problem that is neither addressed nor appreciated by the references cited by the Examiner. Given the fact that intelligent agents are expected to operate with some degree of delegated autonomy, such agents very well may be subjected to an increased risk from malicious parties, particularly when such agents are resident in uncontrolled or untrusted environments. Thus, by attempting to identify unknown parties with which intelligent agents are interacting, embodiments consistent with the invention potentially enable intelligent agents to modify their behavior so as to minimize the risk posed by a party with which they are interacting. In contrast, both *Hoffman* and *Leipow* primarily address environments where the software apparently analogized by the Examiner to an intelligent agent is not delegated any autonomy, nor presented with any such analogous risk. Indeed, *Leipow*, which the Examiner specifically relies upon for teaching the identification of an unknown party interacting with an intelligent agent, specifically attempts to keep users anonymous relative to one another.

As such, Applicants respectfully submit that the Examiner has failed to raise a *prima facie* case of obviousness with respect to claim 54. Moreover, with regard to independent claims 60 and 61, each of these claims likewise recites the identification of an unknown party interacting with an intelligent agent through the comparison of attributes determined for an unknown party with attributes related to a plurality of known parties. Claims 60 and 61 are therefore non-obvious over *Hoffman* and *Leipow* for the same reasons as presented above for claim 54. Reversal of the rejections of claims 54, 60 and 61, as well as allowance of these claims and of the other Group I claims which depend therefrom, are therefore respectfully requested.

B.   The Group II claim (claim 104) was improperly rejected as being unpatentable over *Hoffman* in view of *Leipow*

Claim 104 depends from claim 60, and additionally recites that each of a plurality of attributes has a weighting factor associated therewith. As such, claim 104 permits different attributes to be assigned different degrees of relevancy for use in the determination of the identify of an unknown party.

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Prior to addressing the specific rejection of claim 104, Applicants feel it necessary to address an overriding defect in the Examiner's rejections of all of the dependent claims currently on appeal. In particular, in rejecting these claims, the Examiner has done nothing more than cite the same passages in *Hoffman* that were used to support the rejections of the independent claims, namely the abstract, Figs. 1 and 2, col. 7, lines 50-59, col. 8, lines 11-51, col. 9, lines 11-44, col. 12, line 23 to col. 13, line 34, col. 71, lines 5-20 and claim 1. *Leipow* is not even mentioned, and moreover, the reasons presented in support of each rejection are entirely conclusory in nature. In fact, the text of each rejection is simply a verbatim reproduction of the specific claim language at issue. Moreover, despite the fact that Applicants have addressed a number of these claims separately in their prior responses, the Examiner has never attempted to rebut Applicants' prior arguments made with respect to any of these rejections.

Due to the cursory nature in which each dependent claim has been addressed to date, it has been difficult to ascertain the Examiner's reasoning for the rejections. Moreover, the lack of careful analysis of the claims renders the rejections deficient on their face. Reversal of the Examiner's rejections of all dependent claims are therefore respectfully requested on this basis.

Specifically turning now to claim 104, Applicants can find no discussion in either reference purporting to disclose the concept of applying weighting factors to a plurality of attributes, much less applying weighting factors to attributes in the context of identifying unknown parties. Moreover, the Examiner has not asserted, nor have Applicants found, any motivation in either reference to modify *Hoffman* to incorporate such functionality. As such, Applicants respectfully submit that the Examiner has failed to raise a *prima facie* case of obviousness with respect to claim 104. Reversal of the rejection, and allowance of claim 104, are therefore respectfully requested.

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C.   The Group III claims (claims 57, 105 and 110) were improperly rejected as being
     unpatentable over *Hoffman* in view of *Leipow*

Claim 57, which is representative of the Group III claims, depends from claim 55 and

further recites, similar to claim 104, that each of a plurality of attributes has a weighting factor

associated therewith. Claim 57 also recites that the comparing step calculates an accumulated

weighting factor for each known party by summing the weighting factors of the attributes of the

known party which match those of the unknown party, and that the identifying step identifies the

unknown party as the known party with the largest accumulated weighting factor.

As with claim 104, the Examiner has not specifically addressed what particular disclosure

in *Hoffman* renders claim 57 obvious, or the reasons why claim 57 is not distinguishable from the

prior art of record. In addition, Applicants can find no discussion in either reference purporting

to disclose the concept of applying weighting factors to a plurality of attributes, or of summing

weighting factors of matching attributes to calculate an accumulated weighting factor that is used

to identify an unknown party.

Accordingly, Applicants respectfully submit that the Examiner has failed to raise a *prima

facie* case of obviousness with respect to claim 57. Likewise, the rejections of claims 105 and

110, which recite similar subject matter, are similarly deficient. Reversal of the rejections, and

allowance of claims 57, 105 and 110, are therefore respectfully requested.

D.   The Group IV claims (claims 58, 106 and 111) were improperly rejected as being
     unpatentable over *Hoffman* in view of *Leipow*

Claim 58, which is representative of the Group IV claims, depends from claim 55 and

further recites that the unknown party is an intelligent agent configured to conduct electronic

transactions, and that the plurality of attributes are selected from the group consisting of an agent

name, a client name, a bank name, a bank account number, a credit card number, a homebase

location, an agent program name, a location or name of a source with which the unknown party

communicates, and combinations thereof. Of note, therefore, claim 58 is directed to identifying

an unknown <u>intelligent agent</u> that is interacting with another intelligent agent.

As with the other dependent claims, the Examiner has not specifically addressed what particular disclosure in *Hoffman* renders claim 58 obvious, or the reasons why claim 58 is not distinguishable from the prior art of record. In addition, Applicants can find no disclosure in *Hoffman* that teaches any functionality that would even arguably be capable of ascertaining the identity of a computer program such as an intelligent agent.

Instead, *Hoffman* is directed to identifying a <u>human</u> unknown party through the use of biometrics, which is defined by Webster as "the statistical study of biological phenomena." Examples of biometric techniques in *Hoffman* include "finger prints, hand prints, voice prints, retinal images, handwriting samples and the like" (Col. 4, lines 22-24). Biometric analysis is therefore <u>irrelevant</u> for ascertaining the identify of an intelligent agent or any other computer program. As such, Applicants respectfully submit that the biometric techniques described in *Hoffman* fall far short of disclosing or suggesting the identification of an <u>intelligent agent</u> configured to conduct electronic transactions.

Likewise, *Leipow* does not even address the identification of any unknown party (as noted above), much less the identity of a computer program or intelligent agent. It also does not appear that the Examiner even attempts to rely on the reference to disclose or suggest such a concept.

Applicants therefore respectfully submit that the Examiner has failed to raise a *prima facie* case of obviousness with respect to claim 58. Likewise, the rejections of claims 106 and 111, which recite similar subject matter, are similarly deficient. Reversal of the rejections, and allowance of claims 58, 106 and 111, are therefore respectfully requested.

E.   <u>The Group V claims (claims 59, 107 and 112) were improperly rejected as being unpatentable over *Hoffman* in view of *Leipow*</u>

Claim 59, which is representative of the Group V claims, depends from claim 55 and further recites that the unknown party is an intelligent agent, and that the determining step includes the step of scanning program code for the unknown party to determine attributes thereof.

As with the other dependent claims, the Examiner has not specifically addressed what particular disclosure in *Hoffman* renders claim 59 obvious, or the reasons why claim 59 is not

distinguishable from the prior art of record. In addition, Applicants can find no disclosure in *Hoffman* that teaches any functionality that would even arguably be capable of scanning program code for an unknown intelligent agent to determine attributes thereof. The Examiner did not assert that *Leipow* is at all relevant to this concept, nonetheless, Applicants were unable to find any disclosure in *Leipow* that appears to be relevant in this regard.

As discussed above in connection with the Group IV claims, the references cited by the Examiner fail to disclose or suggest the identification of an unknown intelligent agent interacting with another intelligent agent. Moreover, *Hoffman's* disclosure of a biometric technique for identifying an unknown person does not even arguably suggest the scanning of program code to ascertain the identity of an intelligent agent or other computer program.

Applicants therefore respectfully submit that the Examiner has failed to raise a *prima facie* case of obviousness with respect to claim 59. Likewise, the rejections of claims 107 and 112, which recite similar subject matter, are similarly deficient. Reversal of the rejections, and allowance of claims 59, 107 and 112, are therefore respectfully requested.
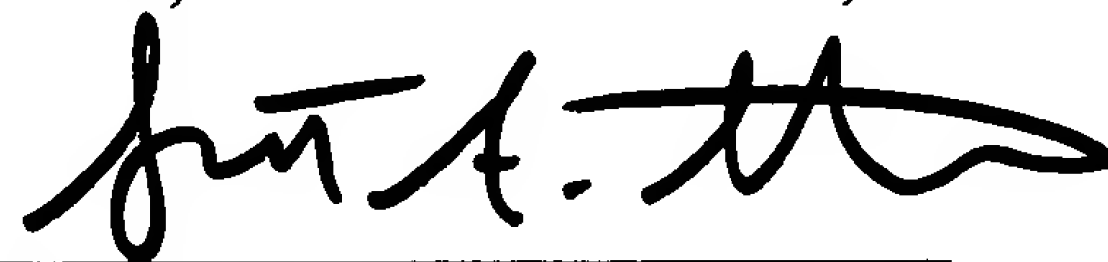
IX. CONCLUSION

In conclusion, Applicants respectfully request that the Board reverse the Examiner's rejections of claims 54-63 and 104-112, and that the Application be passed to issue. If there are any questions regarding the foregoing, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

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APPENDIX A: CLAIMS ON APPEAL (S/N 09/431,833)

54. (Original) A method of identifying an unknown party interacting with an intelligent agent, the method comprising the steps of:

    (a) determining at least one attribute related to the unknown party;

    (b) comparing the attribute for the unknown party with attributes related to a plurality of known parties; and

    (c) identifying the unknown party as the known party having the attribute which most closely matches that of the unknown party.

55. (Original) The method of claim 54, wherein the determining step determines a plurality of attributes related to the unknown party, and wherein the comparing step compares the plurality of attributes for the unknown party with those of the plurality of known parties.

56. (Original) The method of claim 55, wherein the comparing step includes the step of accessing a database including a plurality of records, each record associated with a known party and including the plurality of attributes related thereto.

57. (Original) The method of claim 55, wherein each of the plurality of attributes has a weighting factor associated therewith, wherein the comparing step calculates an accumulated weighting factor for each known party by summing the weighting factors of the attributes of the known party which match those of the unknown party, and wherein the identifying step identifies the unknown party as the known party with the largest accumulated weighting factor.

58. (Original) The method of claim 55, wherein the unknown party is an intelligent agent configured to conduct electronic transactions, and wherein the plurality of attributes is selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof.

59. (Original) The method of claim 55, wherein the unknown party is an intelligent agent, and wherein the determining step includes the step of scanning program code for the unknown party to determine attributes thereof.

60. (Original) An apparatus for identifying an unknown party interacting with an intelligent agent, comprising:

(a) a database including a plurality of records, each record associated with a known party and including the plurality of attributes related thereto; and

(b) an identification module, coupled to the database, the identification module configured to compare a plurality of attributes for the unknown party with those of each known party and to identify the unknown party as the known party having the attributes which most closely match those of the unknown party.

61. (Original) A program product comprising:

(a) a program configured to perform a method of identifying an unknown party interacting with an intelligent agent, the method comprising the steps of:

(1) determining at least one attribute related to the unknown party;

(2) comparing the attribute for the unknown party with attributes related to a plurality of known parties; and

(3) identifying the unknown party as the known party having the attribute which most closely matches that of the unknown party; and

(b) a signal bearing media bearing the program.

62. (Original) The program product of claim 61, wherein the signal bearing media is transmission type media.

63. (Original) The program product of claim 61, wherein the signal bearing media is recordable media.

104. (Once Amended) The apparatus of claim 60, wherein each of the plurality of attributes has a weighting factor associated therewith.

105. (Added) The apparatus of claim 104, wherein the identification module is configured to calculate an accumulated weighting factor for each known party by summing the weighting factors of the attributes of the known party which match those of the unknown party, and to identify the unknown party as the known party with the largest accumulated weighting factor.

106. (Once Amended) The apparatus of claim 60, wherein the unknown party is an intelligent agent configured to conduct electronic transactions, and wherein the plurality of attributes are selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof.

107. (Once Amended) The apparatus of claim 60, wherein the unknown party is an intelligent agent, and wherein the identification module is configured to scan program code for the unknown party to determine attributes thereof.

108. (Added) The program product of claim 61, wherein the program is configured to determine a plurality of attributes related to the unknown party, and to compare the plurality of attributes for the unknown party with those of the plurality of known parties.

109. (Added) The program product of claim 108, wherein the program is configured to access a database including a plurality of records, each record associated with a known party and including the plurality of attributes related thereto.

110. (Added) The program product of claim 108, wherein each of the plurality of attributes has a weighting factor associated therewith, wherein the program is configured to calculate an accumulated weighting factor for each known party by summing the weighting

factors of the attributes of the known party which match those of the unknown party, and to identify the unknown party as the known party with the largest accumulated weighting factor.

111. (Added) The program product of claim 108, wherein the unknown party is an intelligent agent configured to conduct electronic transactions, and wherein the plurality of attributes are selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof.

112. (Added) The program product of claim 108, wherein the unknown party is an intelligent agent, and wherein the program is configured to scan program code for the unknown party to determine attributes thereof.